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ABSTRACT

Reported is a study which sought to determine whether a grade ten forestry class can provide students with basic skills in logging and to confirm the belief that a substantial number of the program graduates gain employment in the forest industry. Graduates from five years (1974-1979), local logging contractors, and industry personnel were surveyed. Questionnaires were distributed to 19 logging contractors and 90 former students. Opinions were also sought from the class teacher and from supervisory personnel employed in the major, local saw mill operations. Findings of this study suggest that proper skills have been emphasized in the program and that a majority of the former students found employment in the logging industry. (BT)

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SECONDARY SCHOOL FORESTRY PROGRAM: AN EVALUATION

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by

Herbert A. LaFontaine

An Evaluation of Forestry 10
at Charles Bloom Secondary School
Lumby, B.C. 1974-1979

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Abstract

Secondary School Forestry Program: An Evaluation

The main objective of this study was to determine whether or not a grade ten course can provide students with a basic skill level in logging. Graduates from the 5 years, 1974-79,of the grade ten of Forestry Class at Charles Bloom Secondary in Lumby, B.C. were surveyed to evaluate the course. Local logging contractors and industry personel also had input into the study.

A secondary objective of the study was to confirm the belief that a substantial number of Charles Bloom Secondary School students eventually gain employment in the forest industry. This belief has been basic to the original development of a class to teach logging skills and has also been fundamental to a recent expansion of the one forestry 10 course into a seven course, grade eleven and twelve, pre career program in forestry.

The objectives of this study were framed as two evaluation questions: 1. Does the Forestry Course provide students with a basic skill level in logging skills? 2. Do students leaving the Forestry Course seek employment in the logging industry?

Questionnaires were mailed or given to nineteen logging contractors and ninety former students. The study involves an analysis of the answers provided by those who replied to the questionnaires. Results have been compiled into answers from logging contractors and answers from former students. Opinions were also sought from the class teacher and from supervisory personel employed in the major local saw mill operations. The data gathered from these sources were used to answer the two Evaluation Questions.

The findings of this study suggest that proper skills have been emphasized in the Forestry 10 class to this time but that more time should be devoted to this task. It was found that a majority of the former Forestry 10 class students gained employment in the logging industry. The findings also suggest that their is ample reason to expand the course along the lines presently being followed at Charles Bloom Secondary.

Table of Contents

Title Page i
Abstract .....ii-iii
Table of Contents.....iv
List of Tables v
Chapter I
Introduction 1
Chapter II
Method 3
Chapter III
Results of the Study.....4
Chapter IV
Summary of Results.....13
Chapter V
Recommendations 14

List of Tables

1. Number of Logging Contractors Hiring Forestry Course Graduates 4
2. Number of Logging Contractors Who Had Chance For Input in Developing Forestry Course.....5
3. Number of Logging Contractors Willing to Help Instruct Students in the Forestry Class.....5
4. Number of Former Students Replying to Study Questionnaire.....5
5. Present Distribution of Former Forestry Students.....6
6. Forest Industry Distribution of Former Forestry Students.....6
7. Logging Occupation of Former Forestry Students.....7
8. Employment Status of Former Forestry Students by Sex Distribution.....7
9. Assessment of Strongest and Weakest Skill Areas by Former Forestry Students.....9
10. Need for Changes in the Forestry Class as seen by Former Forestry Students.....9
11. Effect on Attitude of Forestry Class as seen by Former Forestry Students.....10
12. Number of Former Forestry Students Who Have Had Opportunity to use Skills Taught Them.....10

CHAPTER 1

INTRODUCTION

Forestry 10 was introduced in Charles Bloom Secondary School in Lumby, B.C. as a locally developed, Provincially approved course in the fall of 1974. The course was developed as a school response to the fact that many of the local boys gain employment in the forest industry but it is impossible to arrange any school time work experience in those fields. The reasoning was, that if the boys cannot gain work experience in industry, let the school itself provide the arena for training for logging skills.

The outline for the forestry course was developed through co-operation with local forest industry personel. As it was originally developed, it had five objectives, industry support and no money or equipment.

The course was started with a loan from one of the local sawmills. This money was used to purchase three power saws and the students harvested enough logs for the mill to pay off the loan. The class worked with borrowed equipment and volunteer expertise from local loggers.

As the years went by, and the course proved to be viable, support for the program increased. A used skidder was donated by local industry in 1977. The local school board and provincial ministry of education purchased a small bulldozer in 1979. Twenty acres of Crown timber was gained as a Timber Sale in 1978 and the Forest Service now has an application for a woodlot of 840 acres for class use.

The one Forestry 10 class has expanded, in the 1978-79 school year, to become a seven course Pre Careers Program.

Purpose of the Study

Forestry 10 has been taught at Charles Bloom Secondary School since 1974. The course is unique in that it attempts to teach logging skills to junior high school students through practical, on site, experience.

During its developmental stages the course has had a lot of support from local industry. This support has been both moral and concrete but to date the only results have been an "on faith" belief that the course has been having positive results.

The purpose of this study is an attempt to provide some factual evaluation of the Forestry 10 course.

Description of the Study

The study has been constructed around two evaluation questions.

1) Does the Forestry Course provide students with a basic skill level in logging skills?
2) Do students leaving the Forestry Course seek employment in the logging industry?

Role of the Study

This study is intended to be formative in nature. Its findings are intended to help the school improve its Forestry course.

CHAPTER II

Method

Questionnaires were mailed or given to nineteen logging contractors and ninety former students. The study involves an analysis of the answers provided by those who replied to the questionnaires. Results have been compiled into answers from logging contractors and answers from former students. Opinions were also sought from the class teacher and from supervisory personel employed in the major local saw mill operations. The data gathered from these sources were used to answer the two Evaluation Questions.

Limitations of the Study

1. The number of logging contractors not replying to the questionnaires(47%)
2. The number of former students not replying to the questionnaires (40%)
3. The difficulties of gathering evaluative opinions from former students who are either just starting employment or are still in school and not yet employed.
4. Small sample size in some instances.

CHAPTER III

Results of the Study
LOGGING CONTRACTORS

Of the nineteen logging contractors contacted, ten replied to the questionnaire. Table I shows that of these 10, only one indicated that they had hired a former forestry class student. This information does not agree with that provided by the former students in Table 6 where eleven indicated they are employed in the logging industry.

Table II indicates that only 1 out of the 10 logging contractors believed that they had any opportunity for input into the forestry course. This information confirms the author's belief that the school had lost contact with logging personel in the field. In spite of this poor contact eight out of the ten contractors expressed a willingness to help with instruction in the Forestry class. Both of the contractors in Table III who stated that they were not willing to help with instruction stated that their operations were too small, with only two or three employees, to offer much help in providing instructors.

TABLE I

Number of Logging Contractors Hiring
Forestry Course Graduates

Number of Contractors	Have hired a Graduate	Have not hired a Graduate
10	1	9

TABLE II

Number of Logging Contractors Who Had Chance For Input in Deveoping Forestry Course

Number of Contractors	Did have Input	Did Not have Input
10	1	9

TABLE III

Number of Logging Contractors Willing to Help Instruct Students in the Forestry Class

Number of Contractors	Willing to Help	Not Willing to Help
10	8	2

TABLE IV

Number of Former Students Replying to Study Questionnaire

Number of Students	Did Reply	Did Not Reply
90	54(60%)	36 (40%)

FORMER STUDENTS

Table IV shows that 60% of the ninety former students replied to the questionnaire. Of those who did not reply, most had left the area and could not be contacted. Some were contacted and simply did not reply.

The largest number of those former students, who did reply, were still attending school. Table V indicates this, and that the majority of the former students who have completed school are employed in the forest industry.

Tables VI and VII demonstrate that the majority of former students, employed in the forest industry are employed in logging as skidder drivers or power saw operators.

TABLE V

Present Distribution of Former Forestry Students

Number	Still in School	Employed in Forest Industry	Not Employed Forest Industry
54	23 (43%)	19 (35%)	12 (22%)

TABLE VI

Forest Industry Distribution of Former Forestry Students

Number	Logging	Saw Mill	Truck Driver
19	11 (59%)	6 (31%)	2 (10%)

Table VIII illustrates that only one out of six female former forestry students gained employment in the forest industry. This one female was employed on a clean-up crew in a saw mill. No data were compiled as to why so few females gained employment in the forest industry but four of the girls offered the opinion that they were not interested in a career in the forest industry.

TABLE VII

Logging Occupation of Former Forestry Students

Number	Skidder Driver	Bucking	Other
11	5(45%)	4 (36%)	2 (19%)

TABLE VIII

Employment Status of Former Forestry Students By Sex Distribution

	Number	Male	Female
Employed in Forest Industry	19	18	1
Not Employed in Forest Industry	12	7	5

Table IX on the former student assessment of strengths and weaknesses of the forestry class is quite inconclusive in pointing out any areas of strength or weakness. The respondents were well divided as to their assessments of strengths and weaknesses.

Table X demonstrates that former students, especially those out of school, believe that they needed more on the job practice as a change to the forestry class.

Table XI is very inconclusive about any perceive attitudinal changes as a result of being in the forestry class.

The majority of the students in Table XII have had opportunity to use some of the skills taught them in the forestry class. For some of these, the skill was simply using a power saw to cut fire wood or to help around home while for others it led directly to employment as a skidder driver or power saw operator.

INDUSTRY SUPERVISORS AND CLASS TEACHER

Industry supervisory personel report not seeing direct results of the forestry class at their level. They do not normally become directly associated with employees at the beginning level in either the forest or saw mill operations and therefore were not surprised at any perceived lack of direct results. Generally the belief was that the general concept of forestry instruction, as pursued in the school class, is good and should be continued and even expanded. Some concern was expressed over the limited amount of direct contact with logging professionals in the day to day operation of the school class.

TABLE IX

Assessment of Strongest and Weakest Skill Areas by Former Forestry Students

	Number	Strongest Skill				Weakest Skill			
		Skidder	Power Saw	None	Other	Skidder	Power Saw	None	Other
Employed in Forest Industry	19	6	6	6	2	4	3	8	4
Not Employed in Forest Industry	12	3	5	3	1	2	3	3	4
Students still in school	23	13	8	1	1	4	9	5	5
Total	54	22	19	9	4	10	15	16	13

TABLE X

Need for Changes in Forestry Class as seen by Former Forestry Students

	Number	More Practice	No Change	No Opinion	Other
Employed in Forest Industry	19	7	4	5	3
Not Employed in Forest Industry	12	7	1	2	2
Students Still in School	23	4	9	5	5
Total	54	18	14	12	10

TABLE XI

Effect on Attitude by Forestry Class as seen by Former Forestry Students

	Number	Attitude to School		Attitude to Work	
		Changed	No Change	Changed	No Change
Employed in Forest	19	9	10	6	13
Not Employed in Forest Industry	12	4	8	5	7
Students Still in School	23	9	14	-	-
Total	54	22	32	11	20

TABLE XII

Number of Former Forestry Students Who Have Had Opportunity to Use Skills Taught Them

	Number	Have Used Skills	Have Not Used Skills
Employed	19	13	6
Not Employed	12	5	7
Still in School	23	17	6
Total	54	35	19

The forestry class teacher believes that the skills of power saw operation, equipment maintenance and skidder operation have been successfully introduced to class members. His emphasis has been to correctly introduce students to logging skills rather than to have them learn by trial and error. There has been no attempt to turn out skilled operators, rather simply to introduce them to skills. More time could be used to practice the skills taught.

Equipment requirements, especially with the recent purchase of a bulldozer, are seen as being met. There is a belief by the teacher that there is still a need for a logging truck as part of the class equipment. Class out of school time for on site experience in the bush is a continuing problem at the grade ten level. In spite of the problems, this objective is being met as is the problem of obtaining supplies on short notice. The recent aquisition of crown land for class use will also help supply some of the supply money, through sale of logs, that is required for day to day operation of the class.

EVALUATION QUESTIONS

1) Does the Forestry Course Provide Students with a basic level in logging?

The general opinion of the former students questioned was that the Forestry Course provided them with a minimum skill level in logging. Several stated that they needed more practice to become proficient in the skills taught. However, when one considers that the objective of the course is to introduce students to proper execution of logging skills, it is likely that this objective is being met.

2. Do Students Leaving the Forestry Course Seek Employment in the Logging Industry?

Of the former students who have left school and are eligible for employment, 60% are employed in the forest industry. Of the same total, 35% are employed directly in logging. Whereas the course objectives are to introduce logging skills, and 65% of the course graduates are not now employed in logging, some consideration should be given to introducing some other forestry skills in addition to those now taught.

CHAPTER IV

SUMMARY OF RESULTS

1. Generally the logging contractors were supportive of the forestry class.
2. Logging contractors felt that they had little opportunity for input into the forestry class.
3. Generally, the majority of former students have gained employment in the forest inductry.
4. The most common areas of logging employment for former students are as skidder or power saw operators.
5. Girls do not appear to gain employment in the logging industry.
6. There is little agreement among former forestry students about weaknesses or strengths in the course or in any influence on attitudinal development as a result of the course.
7. The majority of the former students believe that they could have been helped by having more on the job experience. This belief is also held by the class teacher.
8. The majority of the former students had had opportunity to use some of the skills taught in the forestry class.
9. There are some minor problems in the day to day operation of the class as to time available for on site job experience and as to the ready availability of supply money.

CHAPTER V

RECOMMENDATIONS

1. Greater school effort should be made to establish and maintain liason with logging contractors.
2. Present class emphasis on skidder and power saw operation appears to directly benefit those students who go on to become employed in the logging industry. This emphasis should be continued, but class instruction should be expanded to cover in more detail some of the technical areas of the forest industry such as timber cruising and silva culture, lumber grading.
3. School authorities should be consulted about the problems with class time for on site job experience and the availability of funds for supply items.
4. More class time should be devoted to on site job experience.